REMARKS

Upon entry of this amendment, claims 1-25 and 28-30 will be in the application, with Claims 1, 14, 17, 23, and 28 having been amended. Claims 1, 14, 17, 23, and 28 are the independent claims herein. No new matter has been added. Reconsideration and further examination are respectfully requested.

Claim Rejections

Claims 1-13 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,559,881 ("Sih"). Claims 14-25 and 28-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,768,796 ("Lu") in view of U.S. Patent No. 5,029,121 ("Kawata"). Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1

Amended independent claim 1 recites a signal modification method that comprises receiving an input signal at an input of a filter, sensing a high amplitude of a first portion of an input signal, determining a scaling value based on a value of the high amplitude, scaling a binary range associated with one or more taps of the filter to the scaling value, storing a value corresponding to a second portion of the input signal in association with one of the taps according to the scale, and modifying the input signal by an amount commensurate with the stored portion of the input signal.

The art of record is not seen to disclose or to suggest the above-mentioned features of amended independent claim 1. In particular the art of record is not seen to disclose or to suggest, sensing a high amplitude of a first portion of an input signal and determining a scaling value based on a value of the high amplitude.

As discussed in the previous response, Sih uses a threshold value to determine if samples will be attenuated by a pre-determined amount. If, for example, samples can range from -8031 to 8031 then the system might automatically attenuate an input signal by 1.5 dB whenever samples

rise above 7900 (e.g., to improve echo cancellation when someone is shouting). Col. 17, lines 21-33. Accordingly, Sih discloses sampling to determine if attenuation is needed but does not disclose sampling to determine the amount of attenuation.

The remaining art of record has been reviewed and is not seen to remedy the foregoing deficiencies in Sih. Therefore, the art of record, taken in any permissible combination, is not seen to disclose or suggest sensing a high amplitude of a first portion of an input signal and determining a scaling value based on a value of the high amplitude.

In view of the foregoing, amended independent claim 1 and its related dependent claims are believed to be in condition for allowance.

Claims 14, 17, and 23

Amended independent claim 14 recites a method of dynamically scaling a value associated with a finite impulse response filter tap to an echo amplitude. The method comprises determining a range of values that may be held in binary in association with the tap, sensing a high value of the range of values, determining a scaling value based on the high value of the range of values, and dynamically scaling the range of values that may be held in binary in association with the tap to the scaling value.

The art of record is not seen to disclose or to suggest the above-mentioned features of amended independent claim 1. In particular the art of record is not seen to disclose or to suggest, sensing a high value of a range of values and determining a scaling value based on the high value of the range of values.

As described in the previous response, Kawata, at column 1, lines 33 through 41, describes coefficient registers 2-1 through 2-5. The coefficient data are loaded into the registers through the CPU interface and are multiplied by a corresponding data signal. Nowhere can Kawata possibly be seen to disclose or suggest the coefficient registers being populated by sensing a high value of a range of coefficient data and determining a scaling value based on the high value of the range of coefficient data.

The remaining art of record has been reviewed and is not seen to remedy the foregoing deficiencies in Kawata. Therefore, the art of record, taken in any permissible combination, is not seen to disclose or suggest sensing a high value of a range of values and determining a scaling value based on the high value of the range of values.

In view of the foregoing, amended independent claim 14 and its related dependent claims are believed to be in condition for allowance.

Amended independent claims 17 and 23, recite limitation similar to those described above with respect to amended independent claim 14. In view of the foregoing, amended independent claims 17, 23, and 28 and their respective dependent claims are believed to be in condition for allowance.

Claim 28

Amended independent claim 28 describes an article of manufacture that comprises a computer readable medium. The computer readable medium has stored thereon instructions which, when executed by a processor, cause the processor to determine a range of values that may be held in binary by a plurality of bits, sense a high value of the range of values, calculate a scaling value based on the high value of the range of values, wherein the calculated scaling value may represent one of at least three potential scaling values and scale the range of values that may be held in binary in association with the tap to the scaling value.

The art of record is not seen to disclose or to suggest the above-mentioned features of amended independent claim 28. In particular, the art of record is not seen to disclose or to suggest calculating a scaling value based on the high value of the range of values, wherein the calculated scaling value may represent one of at least three potential scaling values.

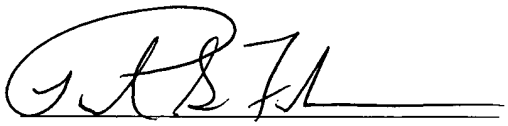
In view of the foregoing, amended independent claim 28 and its related dependent claims are believed to be in condition for allowance.

CONCLUSION

The outstanding Office Action presents a number of characterizations regarding the applied references, some of which are not directly addressed by this response. Applicants do not necessarily agree with the characterizations and reserve the right to further discuss those characterizations.

For at least the reasons given above, it is submitted that the entire application is in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience. Alternatively, if there remains any question regarding the present application or any of the cited references, or if the Examiner has any further suggestions for expediting allowance of the present application, the Examiner is kindly invited to contact the undersigned via telephone at (203) 972-4982.

Respectfully submitted,



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Date

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